



ELECTRICAL CURRENTS

Newsletter from the Office of the Chief Electrical Inspector

Ron Fuller, Chief Electrical Inspector

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● Knocking Down Roadblocks and Lowering Hurdles

The Electrical Currents Newsletter was first published in January 1998 to provide code guidance to promote installation and inspection consistency statewide. This is the first addition of the 5th year of the newsletter. We have changed the heading to mark this occasion. We are still providing clear code interpretation but have also expanded the newsletter to include important information regarding other issues relevant to Electrical Contractors and individuals doing electrical work in the State of Washington. This newsletter continues to be a valuable tool in bringing the department and its stakeholders together on issues that might otherwise remain unclear.

During the past year we have accomplished much due to continued efforts by the electrical staff and interested stakeholders who have given of their time and talent to help improve the safety of the citizens of the state and improve the relationship between the department and our customers. Here are some of the accomplishments of 2001.

- Major revisions were made to department forms that simplified them and streamlined processing.
- The department established a database with some 2500 questions for administrator and electrician certification. Beginning February 1, 2002 applicants for the examination will be able to take the appropriate examination electronically at test sites throughout the state.
- Internet Purchase of Electrical Permits (IPEP) system allows contractors to purchase permits over the Internet. This system also allows the contractor to view his Contractor Deposit Account. Contractors using (IPEP) will soon have the ability to use a credit card when purchasing a permit on-line.
- Electrical Inspection Request Service (EIRS) allows 24-hour a day, seven day a week access for contractors to request inspections and view their inspection results on-line.
- Modified the mobile inspection program and completed statewide training of inspectors.
- Trained staff at all service locations statewide via the Internet.
- Worked with industry stakeholders to bring more than 15,000 contractors and electricians into compliance with the electrical statute.
- Worked with industry stakeholders to rewrite WAC 296-46A (Safety Standards-Installing Electrical Wires and Equipment) and WAC 296-403 (Amusement Rides and Structures).

The department extends a special thank you to all the stakeholders who worked along with us to make the WAC rule process so successful.

● Electrical Permit Fees

Electrical permit fees were discussed in the November 2001 Electrical Currents newsletter notifying our stakeholders that line items can no longer be added to a permit without charge. Fees for thermostats, low voltage systems, security and fire alarm systems, and signs must be paid for at the rate listed in the fee schedule. Fee training for inspectors and department field services staff will be completed soon and line item fees will be required on permits purchased after January 31, 2002.

● Scheduling Examinations for Electricians and Administrators

Effective February 1, 2002 tests for electrical administrators and electricians will be given by **LaserGrade**. Candidates for testing must schedule the day and time of their test directly with **LaserGrade**, not before the last week of January. Scheduling a test can only be done after the candidate has received the department's approval of their application.

All testing done through **Exterior** must be completed before February 1, 2002. Any test given by **Exterior** after January 31, 2002 will not be accepted as proof of competency. If you are currently

scheduled to take an exam administered by **Exterior** after January 31, 2002 you must reschedule testing with **LaserGrade**. Those candidates who have passed any section(s) of the administrator examination will only be required to schedule with **LaserGrade** for those sections of the test not successfully completed.

● More Arc-Fault Circuit-Interrupter (AFCI) Information

Enforcement of 1999 NEC 210-12(b) requiring AFCI protection of dwelling unit bedroom branch circuits supplying 15- and 20-ampere receptacles will apply to electrical work permits purchased after December 31, 2001. When new 15- and 20-ampere circuits supplying dwelling unit bedroom receptacles are installed, **arc-fault circuit breakers** will be required to provide the necessary AFCI protection. For extensions to existing dwelling unit bedroom circuits, the department will allow arc-fault protection provided by feed-through devices or arc-fault circuit breakers. AFCI protection for existing (unaltered) bedroom circuits will not be required for simple panel changes or altered services

● Reporting Trainee Hours

A trainee cannot earn hours in a category out of the scope-of-work of the contractor that they work for. A specialty electrical contractor's classification determines the type of specialty electrician they can dispatch without supervision. If a specialty electrician's certification type is not the same as the contractor's license type, then the individual must have a training certificate and be working under proper supervision. There are two exceptions: A journeyman (01) electrician can work for any type of specialty contractor and a residential (02) specialty electrician can work for a (07B) residential maintenance contractor and do work within the contractor's scope without supervision.

The following is a guide to help contractors and trainees report hours in the proper categories.

Contractor Type	Type of Work Performed	Supervising Electrician	Category of Hours That The Contractor Must Report
	Commercial/Industrial Construction	01	Commercial/Industrial (01)
01	Any specialty work appropriate to the supervising electrician's certification	01 or Any Specialty	Hours itemized in the specific specialty type(s) of work performed.
02	Residential Construction	01, 02	Residential (02)
03	Pump and Irrigation	01, 03	Pump and Irrigation (03)
03 or 03A	Domestic Well	01, 03, 03A	Domestic Well (03A)
04	Sign and Outline Lighting	01, 04	Sign (04)
05	Domestic Appliance	01, 05	Domestic Appliance (05)
06	Limited Energy Systems	01, 06	Limited Energy Systems (06)
06 or 06A	HVAC/R	01, 06, 06A	HVAC/R (06A)
07	Non-Residential Maintenance	01, 07	Non-Residential Maintenance (07)
07 or 07A	Non-Resid. Lighting Maintenance	01, 07, 07A	Non-Resid. Lighting Maintenance (07A)
07 or 07B	Residential Maintenance	01, 02, 07, 07B	Residential Maintenance (07B)
09	Telecommunications	N/A	None—WAC 296-401B-335(4)(c)
10	Door, gate, and Similar Systems	01, 10	Door, Gate, and Similar Systems (10)

● Code Question of the Month

This month's Code Question: The height of a meter must be? A) 5-7 feet. B) 6 feet to the center of the meter. C) As required by the serving utility. D) Any of the above.

Last month's Code Question: The maximum allowable voltage drop for a fire pump at the line terminals of the controller, under motor starting conditions is? A) FPN, only a recommendation. B) 3%. C) 5%. D) 15%. **The answer is: D).** [NEC 695-7]